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SYSTEMS AND METHODS FOR CREATING PAGE BASED APPLICATIONS USING DATABASE META DATA Title:

IN THE CLAIMS

Please amend the claims as follows.

(Currently Amended) A computerized method for creating a page for an application, the 1. method comprising:

reading metadata for a database, the metadata including a constraint definition for at least one column of the database;

translating the metadata into a page definition description language, the page definition description language including a translation in accordance with the constraint definition; and outputting the page definition description language.

- (Original) The computerized method of claim 1, wherein reading metadata includes 2. reading column definitions for the database.
- 3. (Original) The computerized method of claim 2, wherein reading column definitions includes reading a column name and a column data type.
- 4. (Original) The computerized method of claim 2, wherein reading column definitions includes reading a null allowable indicator.
- 5. (Canceled)
- (Original) The computerized method of claim 1, wherein reading metadata includes 6. reading the metadata from a file.
- 7. (Original) The computerized method of claim 1, wherein reading the metadata includes invoking an API function to read the metadata.

8. (Original) The computerized method of claim 1, wherein translating the metadata includes translating a database column type to a page description element type.

- 9. (Original) The computerized method of claim 1, wherein translating the metadata includes translating a foreign key reference to a multi-selectable user interface element.
- 10. (Canceled)
- (Currently Amended) The computerized method of claim 1, wherein reading the at least 11. one metadata for the database including a constraint definition for the at least one column of the database comprises reading the metadata for the database including a constraint definition comprising a validation rule.
- (Currently Amended) The computerized method of claim 1, wherein reading the at least 12. one metadata for the database including a constraint definition for the at least one column of the database comprises reading the metadata for the database including a constraint definition comprising an integrity rule.
- (Currently Amended) The computerized method of claim 1, wherein reading metadata 13. for the database comprises reading metadata for a relational database.
- (Currently Amended) The computerized method of claim 1, wherein reading metadata 14. for the database comprises reading metadata for an object-oriented database.
- (Currently Amended) The computerized method of claim 1, wherein translating the 15. metadata into the page definition description language comprises translating the metadata into a ColdFusion scripting language.

- 16. (Currently Amended) The computerized method of claim 1, wherein <u>translating the</u> metadata into the page <u>definition</u> <u>description</u> language comprises <u>translating the metadata into</u> Hypertext Markup Language (HTML).
- 17. (Currently Amended) The computerized method of claim 1, wherein <u>translating the</u> metadata into the page <u>definition</u> <u>description</u> language comprises <u>translating the metadata into</u> a programming language.
- 18. (Currently Amended) The computerized method of claim 17, wherein <u>translating the</u> <u>metadata into</u> the programming language comprises <u>translating the metadata into</u> a ColdFusion scripting language.
- 19. (Currently Amended) A computerized method for creating a page for an application, the method comprising:

receiving a request for a web page;

reading metadata for a database, the metadata including a constraint definition for at least one column of the database;

translating the metadata into [[HTML]] <u>Hypertext Markup Language (HTML)</u> defining the web page; and

sending the web page to the requestor.

20. (Currently Amended) A computerized method for creating a page for an application, the method comprising:

receiving a table identifier for an identifier for a table associated with a database; reading metadata for the table from the database, the metadata including a constraint definition for at least one column of the table;

translating at least one column definition in the metadata into a ColdFusion scripting language;

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translating at least one constraint in the metadata into the ColdFusion scripting language; and

outputting the ColdFusion scripting language to a page description file.

- (Currently Amended) The computerized method of claim 20, wherein receiving the 21. identifier for the table associated with the database includes receiving the identifier for the table associated with the database comprises a relational database.
- (Currently Amended) A computer-implemented system including a memory for creating 22. page descriptions, the system comprising:
- a database management system (DBMS) operable to manage a database, the database having metadata, the metadata including a constraint definition for a column; and
- a metadata reader operable to read the metadata and translate the metadata into a page description language, the page description language including a translation for the constraint definition.
- 23. (Previously Presented) The computer-implemented system of claim 22, wherein the DBMS comprises a Sybase DBMS.
- (Currently Amended) The computer-implemented system of claim 22, wherein the page 24. description language comprises [[HTML]] Hypertext Markup Language (HTML).
- 25. (Previously Presented) The computer-implemented system of claim 22, wherein the page description language comprises a ColdFusion scripting language.
- (Previously Presented) The computer-implemented system of claim 22, further 26. comprising an application builder operable to read the page description language and generate a web page.

- 27. (Previously Presented) The computer-implemented system of claim 26, wherein the application builder comprises a ColdFusion system.
- 28. (Previously Presented) A computer system operable to generate a page based application, the computer system comprising:
 - at least one processor;
 - a memory coupled to the processor; and
- an operating environment executed by the at least one processor from the memory, the operating environment comprising:
 - a database management system (DBMS) operable to manage a database, the database having metadata, the metadata including at least one constraint definition; and a metadata reader operable to read the metadata and translate the metadata into a page description language, the page description language including a translation for the constraint definition.
- 29. (Original) The computer system of claim 28, wherein the DBMS comprises a Sybase DBMS.
- 30. (Currently Amended) The computer system of claim 28, wherein the page description language comprises [[HTML]] Hypertext Markup Language (HTML).
- (Original) The computer system of claim 28, wherein the page description language 31. comprises a ColdFusion scripting language
- (Original) The computer system of claim 28, further comprising an application builder 32. operable to read the page description language and generate a web page.
- (Original) The computer system of claim 32, wherein the application builder comprises a 33. ColdFusion system.

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34. (Currently Amended) A computer-readable medium having computer executable instructions for performing a method for creating a page for an application, the method comprising:

reading metadata for a database, the metadata including at least one constraint definition for at least one column;

translating the metadata into a page definition description language, the page definition description language including a translation in accordance with the at least one constraint definition; and

outputting the page definition description language.

- 35. (Original) The computer-readable medium of claim 34, wherein reading metadata includes reading column definitions for the database.
- 36. (Original) The computer-readable medium of claim 35, wherein reading column definitions includes reading a column name and a column data type.
- 37. (Original) The computer-readable medium of claim 35, wherein reading column definitions includes reading a null allowable indicator.
- 38. (Canceled)
- 39. (Currently Amended) The computer-readable medium of claim 34, wherein reading the metadata includes reading the metadata from a file.
- 40. (Original) The computer-readable medium of claim 34, wherein reading the metadata includes invoking an API function to read the metadata.
- 41. (Original) The computer-readable medium of claim 34, wherein translating the metadata includes translating a database column type to a page description element type.

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42. (Original) The computer-readable medium of claim 34, wherein translating the metadata includes translating a foreign key reference to a multi-selectable user interface element.

- 43. (Canceled)
- 44. (Previously Presented) The computer-readable medium of claim 34, wherein the at least one constraint comprises a validation rule.
- 45. (Previously Presented) The computer-readable medium of claim 34, wherein the at least one constraint comprises an integrity rule.
- 46. (Original) The computer-readable medium of claim 34, wherein the database comprises a relational database.
- 47. (Original) The computer-readable medium of claim 34, wherein the database comprises an object-oriented database.
- 48. (Currently Amended) The computer-readable medium of claim 34, wherein the page definition description language comprises a ColdFusion scripting language.
- 49. (Currently Amended) The computer-readable medium of claim 34, wherein the page definition description language comprises Hypertext Markup Language (HTML).
- 50. (Currently Amended) A computer-readable medium having computer executable instructions for performing a method for creating a page for an application, the method comprising:

receiving a request for a web page;

reading metadata for a database;

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translating the metadata into [[HTML]] Hypertext Markup Language (HTML) defining the web page; and

sending the web page to the requestor.

(Original) A computer-readable medium having computer executable instructions for 51. performing a method for creating a page for an application, the method comprising:

receiving a table identifier for a database;

reading metadata for the table from the database;

translating at least one column definition in the metadata into a ColdFusion scripting language;

translating at least one constraint in the metadata into the ColdFusion scripting language; and

outputting the ColdFusion scripting language to a page description file.

- (Currently Amended) The method of claim 51, wherein receiving the table identifier for 52. the database includes receiving the table identifier for the database comprises a relational database.
- 53. (Original) A method for receiving a web page, the method comprising: issuing a request for a web page to a server, the request including a request for data from a database;

reading metadata for the database; translating the metadata into a web page description language; including the web page description language in the web page; and sending the web page.

(Currently Amended) The method of claim 53, wherein translating the metadata into the 54. web page description language comprises [[HTML]] translating the metadata into Hypertext Markup Language (HTML).

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 - EXPEDITED PROCEDURE

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55. (Currently Amended) The method of claim 53, wherein <u>translating the metadata into</u> the web page description language comprises <u>translating the metadata into</u> a ColdFusion scripting language.

56. (Currently Amended) The method of claim 53, wherein <u>issuing a request for a webpage</u> to the server includes issuing a request for data from the database comprises a relational database.